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EXHAUST EMISSIONS FROM A 1971 PASSENGER CAR EQUIPPED WITH THE "PASER ELECTRONIC ANTI-POLLUTION ENGINE ECONOMIZER"

John C. Thomson

Environmental Protection Agency
Ann Arbor, Michigan

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15. Supplementary Notes

16. Abstracts

The exhaust emission characteristics of the "Paser Magnum" device were evaluated using a 1971 Ford equipped with automatic transmission, air conditioning and a 351 cubic inch displacement engine. The Federal emission test procedure for certification of 1971 vehicles was used. This is the open cycle 7-mode tests and both hot and cold starts were used. The test data, which is tabulated, indicates that there is no measurable effect on emissions on this vehicle caused by installation of the "Paser Magnum" device. This data also indicates no measurable emission effect due to the device's installation.

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17b. Identifiers/Open-Ended Terms

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Federal Test Procedure (1971)
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Hot start

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Vehicle Tested

The exhaust emission characteristics of the "Paser Magnum" device on a 1971 vehicle were desired for use by this Agency and other Government agencies. In order to accomplish this test in the shortest period of time, a 1971 Ford owned by the Environmental Protection Agency was used for evaluation. This vehicle is equipped with automatic transmission, air conditioning and a 351 cubic inch displacement engine. The vehicle had been driven in normal use prior to the test and was continued between test programs.

The "Paser Magnum" is a device that fits between the distributor cap and the spark plug wires and is claimed to "...pre-condition the gases in the non-firing cylinders."

Test Used

For evaluation purposed the Federal emission test procedure for certification of 1971 vehicles was used. This is the open cycle 7-mode test and both hot and cold starts were used. For certification purposes, only cold start data is used although the hot start information is occasionally useful to show trends. As the "Paser Magnum" was previously evaluated using the 1972 Federal procedure it was not felt that the additional tests using that procedure were required. All requirements for instruments for the 1971 tests were met and in addition a non-dispersive infra-red detector was used

for oxides of nitrogen. It should be noted that when using this continuous analysis procedure for NO_x data, apparent differences of up to one gram per mile are possible from identical systems.

Emission Results

The data shown in Table I compare the baseline vehicle and the vehicle with "Paser Magnum" installed. In both sets of tests a comparison of the data was made before and after a 250-mile accumulation. This data indicates that there is no measurable effect on emissions on this vehicle caused by installation of the "Paser Magnum" device. In Table II, data taken from the hot start test is shown. This data also indicates no measurable emission effect due to the device's installation. In addition, there were no noticeable changes in any other operating parameter after installation of this device.

Conclusions

1. The "Paser Magnum" shows no measurable effect on exhaust emissions in this test procedure.
2. During 250 miles of driving the "Paser Magnum" showed no emission reduction.

Table I

"Paser Magnum" evaluation using the
Cold Start 1971 Emission Test

	HC	CO	NO_x
Baseline (no device)			
Before mileage	1.3	21	4.1
After 250 miles	1.5	20	4.9
"Paser Magnum"			
Before mileage	1.6	23	4.7
After 250 miles	1.6	24	3.9
Federal 1971 Standards			
	2.2	23	No Standard

All results are in grams per mile.

Table II

"Paser Magnum" evaluation using the
Hot Start 1971 Emission Test

Baseline (no device)	HC	CO	NO_x
Before mileage	1.2	10	5.2
After mileage	1.2	13	5.1
"Paser Magnum"			
Before mileage	1.1	12	4.7
After mileage	1.2	11	4.9

All results are in grams per mile